

Qi Wang

RESEARCH & CONSULTING EXPERIENCE

AUG 2016 – PRESENT

Advisor: Prof. Vinayak Rao

Department of Statistics, Purdue University

Exact simulation of stochastic differential equations

To develop a new auxiliary variable Gibbs sampler for exact simulation of diffusion process that can improve the sample generating efficiency by orders of magnitude.

JUNE 2015 – PRESENT

Supervisor: Prof. Bruce Craig

Statistical Consulting Service, Department of Statistics, Purdue University

Consultant

To assist faculty and students of Purdue academic community with statistical design, data analysis, and software issues for their research.

AUG 2014 – JUNE 2016

Supervisor: Prof. Dabao Zhang

Department of Statistics, Purdue University

High-dimensional regression and variable selection

Surveyed variable selection and supervised dimension reduction methods for generalized linear model in large p small n setting. Proposed generalized orthogonal components regression for Cox proportional hazards model, which enjoys a more robust convergence behavior and better computation efficiency over iteratively reweighted partial least squares type of algorithms

APRIL 2012 – JUNE 2013

Advisor: Prof. Yaning Yang

Department of Statistics and Finance, University of Science and Technology of China

Haplotype-based statistical association analysis

Surveyed on current multifactor-dimensionality reduction (MDR) methods for detecting high-order multiple-locus gene-gene interaction. Proposed and implemented a more efficient approach to obtain optimum MDR, which can be more powerful than MDR with substantial power gain.

SEP 2010 – AUG 2011

Advisor: Prof. Yaning Yang

Department of Statistics and Finance, University of Science and Technology of China

Processing of sparse microwave images

Surveyed on statistical methods for auto target identification in images of a high degree of noises generated by radar microwave imaging.

GRADUATE COURSEWORK

Statistics

Introduction to Probability, Design of Experiment, Introduction to Mathematical Statistics, Elements of Stochastic Processes, Advanced Statistical Methodology, Computational Statistics, Bayesian Data Analysis, Introduction QTL Mapping, Statistical Methods for Association Mapping, Probability Theory, High Dimensional Data Analysis, Monte Carlo Methods, Divide and Recombine Big Data Computation, Mathematics of Finance, Statistical Foundations and Inferential Models

Computer Science

Statistical Machine Learning, Computational Methods in Optimization, Design and Analysis of Algorithms, Statistical Pattern Recognition and Decision Making Processes, Numerical Analysis, Bioinformatics Algorithms, Numerical Linear Algebra, Parallelism in Numerical Linear Algebra, Data Structures And Algorithms

✉ 2451-G Kestral Blvd, West Lafayette, IN, 47906
☎ (765) 637 8389
✉ qiwang@purdue.edu
➔ <http://www.stat.purdue.edu/wang2047/>

EDUCATION

- 2013 – PRESENT **Doctor of Philosophy**
STATISTICS
Purdue University
- 2010 – 2013 **Master of Science**
STATISTICS
University of Science and Technology of China
- 2002 – 2006 **Bachelor of Science**
PHYSICS
Special Class for Gifted Young, University of Science and Technology of China

AWARDS

- 2013 Outstanding graduate student awards, University of Science and Technology of China
- 2013 First prize, USTC Statistical Modeling Competition
- 2013 First place, National Famous University Dragon Boat competition
- 2012 First place, National Famous University Dragon Boat competition
- 2011 Bronze medal, World Championship Jamboree in International Genetically Engineered Machine competition
- 2011 Silver medal, Regional Jamboree of Asia in International Genetically Engineered Machine competition

COMPUTER SKILLS

PROFICIENT R, SQL
INTERMEDIATE C, C++, Python, MATLAB, Bash, \LaTeX , SPSS, SAS

SELECTED PUBLICATION

- Guan, L., Wang, Q., Wang, L., Wu, B., Chen, Y., Liu, F., ... & Lu, C. (2016). Common variants on 17q25 and gene-gene interactions conferring risk of schizophrenia in Han Chinese population and regulating gene expressions in human brain. *Molecular psychiatry*.
- Shi, C., Zheng, Z., Wang, Q., Wang, C., Zhang, D., Zhang, M., ... & Wang, X. (2016). Exploring the Effects of Genetic Variants on Clinical Profiles of Parkinsons Disease Assessed by the Unified Parkinsons Disease Rating Scale and the HoehnYahr Stage. *PloS one*, 11(6), e0155758.
- Eicher-Miller, H. A., Maulding, M. K., Abbott, A. R., & Wang, Q. (2016). SNAP-Ed Program Characteristics Were Not Associated With Improvement in Food Security. *Journal of Nutrition Education and Behavior*, 48(7), S7.
- Rivera, R. L., Maulding, M. K., Abbott, A. R., Wang, Q., & Eicher-Miller, H. A. (2016). Improvement in Long-term Household Food Security among Indiana Households with Children did not Differ between Rural and Urban Counties after a Supplemental Nutrition Assistance Program-Education Intervention. *The FASEB Journal*, 30(1 Supplement), 674-26.
- Fang, H., Hou, B., Wang, Q., & Yang, Y. (2013). Rare variants analysis by risk-based variable-threshold method. *Computational biology and chemistry*, 46, 32-38.